Provost’s Learning Innovations Grant for Faculty  
Request for Full Proposal  
2001-2002

Please send your completed grant proposal (4 pages, plus attachments), one original and eleven copies, to
Linda Jones, 4000 Eastman  
by 4:30 p.m.  
Friday, February 16, 2001.  
No handwritten proposals will be accepted. 
Notification of awards will be made by Friday, March 16, 2001.

Project Title:  Supporting English Acquisition

Applicant(s):

Name: ____________________________  Gerald P. Berent  ________________  Telephone:  475-6521
Department: ________________________  Department of Research  ________________  College:  NTID

Name: ____________________________  ____________________________  Telephone: __________________
Department: ________________________  ____________________________  College: __________________

Name: ____________________________  ____________________________  Telephone: __________________
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1. Title and summary of proposed project

This proposed project, "Supporting English Acquisition," involves the infusion of English teaching principles and methods into technical, math, science, and social science courses taken by students at the National Technical Institute for the Deaf. Although NTID students receive rigorous English language instruction in programs offered by the NTID Center for Arts and Sciences and the Center for Racialine and Graduate Studies, English skill development remains a formidable challenge to the majority of NTID students and is a major factor affecting student retention, academic success, prospects for gainful employment, and later success on the job. Within the RIT environment, faculty find it the English receptive and expressive skill levels of deaf and hard-of-hearing students limit those students' access to information in the classroom. In view of these factors, NTID Vice President Davila and Dean Hurwitz have articulated the need to infuse English teaching principles throughout the college curriculum in order to enhance NTID student success (NTID's Blueprint: Strategic Objectives 1999-2004).

In response to this need, Gerald P. Berent and E. William Clymer began in 1999 the development of a professional development web site—"Supporting English Acquisition" (SEA), www.rit.edu/~seawww. The site is designed to teach educators how to promote deaf students' English skill development. It summarizes the characteristics of specific problematic English structures and processes, discusses English language research implications, offers interactive guided practice, and suggests how to support English acquisition in content courses. At this point in time, the SEA web site needs to be expanded, refined, and employed by faculty serving NTID students in technical, math, science, and social science courses. Such an effort will constitute the first concrete step toward implementing an "English Across the Curriculum" initiative at NTID.

This proposed project undertakes strategic expansion of the SEA site by enlisting the collaborative involvement of several English-teaching NTID faculty members to author specific modules thus far not included in the site's contents that focus on a variety of problematic English structures and processes. Once the site has been appropriately expanded, its methods will be tested by faculty serving NTID students in special "Grammar Group" courses, and it will be used experimentally to help train "peer tutors," NTID students with strong English skills who help other students with English reading and writing assignments in the NTID Learning Center. Subsequently, NTID faculty volunteer who teach in technical programs in the Center for Technical Studies (CTS) and who teach math, science, and social science courses in the Center for Arts and Sciences (CAS) will visit and study the SEA site's modules as a professional development undertaking. They will familiarize themselves with the characteristics of specific problematic English structures and processes and study suggestions for incorporating English teaching principles and methods into their courses. They will then implement some of the site's suggested applications into their courses, monitor their students' performance and reaction to the new English-related course components, and report on the effectiveness of their initiatives.

One example of a problematic structure to be addressed is the "relative clause," as in A camera which has a solid-state image sensor is a digital camera. Currently, large numbers of deaf students do not have an adequate understanding of the grammatical facts and functions of sentences containing relative clauses. Suggested SEA site activities will contribute to improving students' reading comprehension of relative clause sentences, which are prevalent in technical discourse, and to the appropriate usage of such sentences in written expression (e.g., in lab reports). Activities undertaken within the context of specific course content will help students to manage the grammatical components of relative clause sentences and to understand the important role of the relative clause as a modifier.

The participating faculty's summative evaluation of their efforts to implement SEA site suggestions will contribute to the project's final report that will be shared with faculty and administrators in a variety of forums. Successful outcomes of this project will validate the use of a specific medium, the SEA web site, for infusing English teaching principles and methods throughout the NTID curriculum for enhancing the English language skills of NTID students.
2. Targeted learners or population.

The targeted learners of this project are deaf and hard-of-hearing NTID students enrolled in courses offered through the Center for Arts and Sciences (CAS) and the Center for Technical Studies (CTS). Through CAS, the targeted learners will be students in select math and science courses offered by the Department of Science and Mathematics and in select social science courses offered by the Department of Cultural and Creative Studies. Through CTS, the targeted learners will be students in select technical courses offered through some of the following programs: Applied Art and Computer Graphics, Applied Computer Technology, Business Occupations, Computer Integrated Machining Technology, Digital Imaging and Publishing Technology, Healthcare Billing and Coding, and Ophthalmic Optical Finishing Technology. CTS courses also include the Job Search and Employment Seminar courses. The targeted students are pursuing undergraduate Diploma, A.O.S., or A.A.S. degrees.

Of the approximately 650 NTID students pursuing these degrees, the number of learners impacted by this initial project ranges between 200 and 400. These estimates are based, at the low end, on 10 faculty volunteers x 2 courses in which they implement SEA site recommendations x 10 students per class and, at the high end, on 20 volunteers x 2 courses x 10 students per class. These figures assume the possibility that the same student might be served in more than one of the targeted courses.

3. Anticipated impact on teaching and/or learning.

Faculty's incorporation of English teaching principles and methods into NTID content courses through the guidance of the SEA web site should have a significant impact on both teaching and learning. By supplementing their course materials with English-related activities, faculty will be taking a bold first step toward addressing the need articulated by Vice President Davila and Dean Harwitz to infuse English teaching principles broadly throughout the NTID curriculum.

The impact on teaching is that participating NTID technical, math, science, and social science faculty members will enhance the delivery of their instructional activities by incorporating simple suggestions from the SEA web site that will provide their students with guidance and practice on essential English language structures and processes while simultaneously delivering course content. Activities will be simple and logical (e.g., guiding students to question and respond to course content using correctly formed English questions, guiding students to elaborate technical concepts using modifying clauses, expressing technical procedures with logical ordering using appropriate English verb tenses, etc.). Importantly, these activities reflect natural English language usage and do not require of faculty any background in English language teaching. Accordingly, by taking these initial steps to infuse English into the curriculum, faculty will come to feel empowered and confident to address English skill improvement at the same time that they deliver course content.

The impact on learning will be equally significant. Students will receive "English instruction" at the same time that they receive content instruction. Because good English skills are critical to deaf students' academic and employment success, students will derive the benefit of English skill enhancement not only in their NTID English language courses but simultaneously in their content courses. Ultimately, the considerable increase in time devoted to English language practice—in naturalistic settings related to students' major subject areas—is expected to result in a significant improvement in students' English language skills. Furthermore, the inclusion of an English focus in their content courses will signal to students that good English skills are an integral part of technical training and job skills. This message should increase student motivation to improve in English.
4. Measuring the impact, reporting the findings, and sharing the outcomes in faculty forums.

The ultimate impact of this proposed project will be measured through a summative evaluation at the end of spring quarter consisting of a survey and focus groups with participating faculty. This evaluation will gather information on faculty’s utilization of the SEA site, including samples of any new course activities they employ, perceptions of efficacy, and views on students’ performance and reactions. The chances of a positive impact will be enhanced through the needs assessment performed during the pre-grant period, which will guide the planning of specific SEA site modules based on faculty’s perceived needs for relating the content of the SEA site to their specific programs. The chances of a positive impact will be further enhanced during the winter quarter testing of new SEA modules by Grammar Group faculty and peer tutors to guide further refinement before the spring quarter implementation of SEA site recommendations in context courses.

Findings will be reported in a final written report in June 2002 summarizing the activities and outcomes of the SEA project with recommendations for future utilization. These findings will also be shared in meetings with CAS chairs, CTS chairs, and participating CAS and CTS faculty members. After the grant period, the findings will also be shared during AY2002-03 in a “Brown Bag” presentation sponsored by the Center for Research, Teaching, and Learning and in other forums as appropriate.

5. Rationale for the project, as it ties to the intent of the grant:

a. This proposed project is not part of regular NTID college business because there is no formal mechanism in place to implement the infusion of English teaching principles and methods throughout the NTID curriculum. A Provost’s Learning Innovations Grant is an ideal mechanism for initiating a tangible English Across the Curriculum effort. Importantly, the SEA web site is an already existing vehicle whose expansion and refinement will make this effort readily implementable.

b. The proposed project is directly relevant to required NTID college, center, and department competencies. English language instruction is an integral component of the NTID curriculum, and English competency determines NTID students’ access to degree programs and is a major factor in student retention, academic success, prospects for gainful employment, and later success on the job.

c. This project is relevant to any and all faculty who teach deaf and hard-of-hearing students in view of the major challenge that English poses to these students and the critical need to foster these students’ English skill development at all levels of their education. Success on this project can be readily transferred to other RIT faculty through the SEA site web-based medium and through the endorsement of the Centers whose faculty and administrators have been involved in the project. More broadly, the SEA site’s applications are relevant not only to the NTID faculty described in this proposal, but to RIT faculty serving cross-registered NTID students and to any professionals serving deaf students nationally and internationally.

d. The faculty to be involved in this project have strong credentials in their disciplines and years of experience teaching deaf and hard-of-hearing college students. Most are tenured, senior faculty members. The English faculty who will author SEA modules are all contributors to the development of the NTID English curriculum and have written English instructional materials. The technical, math, science, and social science faculty who will implement the SEA site recommendations in their courses are all specialists in their discipline areas.

e. This proposed innovation falls directly within the applicant’s areas of expertise and discipline areas. Berent has a doctorate in linguistics and a background in English language teaching and learning. Of Berent’s 21 years at NTID, his first 7 involved co-directing NTIDD’s (former) English Learning Center, where he developed numerous English teaching materials. As a member of the NTID Department of Research, his research focuses primarily on the acquisition of English by deaf students. Berent has regular contact with the NTID Department of English and teaches Grammar Group courses for that department.
6. Timetable of the development of the project.

PRE-GRA NT PERIOD (AY00-01; not dependent on funds from Provost’s Learning Innovations Grant):

(1) **Develop Program** (winter/spring quarters) — A special program is being developed by C. Dom (Systems Analyst/Programmer, Educational Resources) which will facilitate conversion of text to HTML for posting modules to the SEA website.

(2) **SEA Site Refinement** (winter/spring quarters) — SEA site creator Berent (Research) will continue to refine features of the site with the assistance of C. Dom.

(3) **Perform Needs Assessment** (winter/spring quarter) — Berent will meet with the Director of the Center for Technical Studies (CTS), the Director of the Center for Arts and Sciences (CAS), CTS and CAS department chairs, 5-10 CTS faculty members, and 5-10 CAS math, science, and social science faculty members to assess perceived needs for relating the content of the SEA website to the specific curricula of these faculty members’ courses. This needs assessment will guide the development of new SEA site modules and the revision of existing modules and will help to guarantee the relevance and usefulness of SEA modules by participating faculty.

(4) **Recruit Site Module Authors** (spring quarter) — In consultation with the CAS Director and the Chairs of the Department of English and the Department of Cultural and Creative Studies, Berent will recruit 3-4 CAS faculty members involved in English language instruction to author specific SEA modules in accordance with the needs assessment described in #3 above.

**GRANT PERIOD (AY01-02):**

(1) **Create SEA Modules** (July 2001) — Berent and recruited faculty will author 6-8 new SEA modules (paid by grant).

(2) **Post Modules to SEA Site** (fall quarter) — Newly developed modules will be edited by Berent and posted to the SEA site with the assistance of C. Dom and a student worker with experience in web site development hired and paid by grant funds.

(3) **Recruit Technical and Math/Science Faculty** (fall quarter) — Five to ten CTS faculty members and 5-10 CAS math, science, and social science faculty members will be invited to participate in this project to improve NTID student learning of English skills by infusing English teaching principles and activities into their content courses.

(4) **Test New SEA Modules** (winter quarter) — Faculty teaching “Grammar Group” courses (including Berent) for the NTID English Department will test SEA site applications for teaching Grammar Group students. NTID students “peer tutors” will test SEA site applications for assisting NTID students with English in the NTID Learning Center. Berent will conduct interviews and/or focus groups with Grammar Group faculty and with peer tutors, which will provide formative evaluation of the SEA site and guide further refinement of the site’s modules in winter quarter.

(5) **Provide Guidelines to CTS and CAS Faculty** (winter quarter) — Berent will provide recruited CTS and CAS faculty members with written guidelines for accessing and using SEA site modules and for incorporating SEA site applications into technical, math, science, and social science courses. These faculty will then begin studying SEA site modules on line. Berent will clarify procedures through consultations with faculty, who will begin planning specific implementations of SEA site recommendations in their spring quarter courses.

(6) **Implement Teaching Principles** (spring quarter) — Ten to twenty participating CTS and CAS faculty will implement one or more SEA site English teaching principles into their technical, math, science, and social science courses. They will keep written notes on their utilization of SEA site modules and their perceptions of the efficacy of incorporating SEA site principles into their course activities. They will record details about student performance on activities based on SEA modules and students’ reactions to the new English-related course components.

(7) **Summative Evaluation** (end of spring quarter) — CTS faculty will provide a summative evaluation of their SEA-related activities through a survey, developed by Berent, which asks about SEA site utilization, perceptions of efficacy, and students’ performance and reactions (information logged in faculty’s notes). Berent will also conduct focus groups to gather additional feedback from faculty. Faculty will also provide Berent with samples of course materials that incorporated SEA concepts.

(8) **Write Final Report** (June 2002) — Berent will submit a final written report summarizing the activities and outcomes of the Supporting English Acquisition project with recommendations for future utilization. Oral reports will be shared in meetings with CAS chairs, CTS chairs, and participating CAS and CTS faculty members.
ATTACHMENTS

(1) Proposed budget for the project with signatures of appropriate budget officers

(2) Letters of support from appropriate administrators, National Technical Institute for the Deaf:

- Dr. Jeffrey Porter, Director, Center for Research, Teaching and Learning
- Dr. John Albertini, Chairperson, Department of Research, Center for Research, Teaching and Learning
- Dr. Laurie Brewer, Director, Center for Arts and Sciences, and Dr. Thomas Raco, Director, Center for Technical Studies
- Dr. Stephen Aldersley, Chairperson, Department of English, Center for Arts and Sciences